LSUHSC-SHREVEPORT	теп	BIDS WILL BE PUBLI	CLY OPENED:
VENDOR NO. :	LSU Health	June 03,2010	02:00 PM
SOLICITATION: 005558 OPENING DATE: 06/03/2010	Sciences Center	Return Bid in Envelo Purchasing Departmen PO Box 33932 Shreveport LA 71130	
		BUYER PHONE :	05/19/2010
AV Equipment			
INSTRUC	TIONS TO BIDDERS		
1. READ THE ENTIRE BID, INCLUDING ALL T 2. FILL IN ALL BLANK SPACES. 3. ALL BID PRICES MUST BE TYPED OR WRIT ALTERATION TO UNIT PRICES SHOULD BE 4. BID PRICES SHALL INCLUDE DELIVERY OF BIDS CONTAINING "PAYMENT IN ADVANCE" BE MADE WITHIN 30 DAYS AFTER RECEIPT LATER. 5. SPECIFY YOUR PAYMENT TERMS: OR LESS THAN 1% WILL BE ACCEPTED, BU	TEN IN INK. ANY COINITIALIZED BY THE ALL ITEMS F.O.B. IOR "C.O.D." REQUIRED FROPERLY EXECUTED TO THE CONSTITUTE OF PROPERLY EXECUTED TO THE CONSTITUTE OF PROPERTY EXECUTED TO THE PROPERTY EXECUTE	DEFINATIONS, ERASION OF ASSETTIVE OF THE PROPERTY OF THE PROPE	URES OR OTHER FORMS OF S OTHERWISE PROVIDED. EJECTED. PAYMENT IS TO ELIVERY, WHICHEVER IS FOR LESS THAN 30 DAYS
* THAT NEITHER THIS BUSINESS ENTITY NOR LISTED AS EXCLUDED OR SANCTIONED BY E OFFICE OF INSPECTOR GENERAL (OIG) OR * THAT IF THIS BUSINESS ENTITY OR ANY O LISTING, MY BID WILL BE REJECTED.  * THAT IF AT ANY TIME DURING THE TERM O TO BID, THIS ENTITY OR ANY OF ITS EMP COMPANY WILL NOTIFY THE CONTRACTING A CONTRACTING AGENCY WILL NOT BE LIABLE	ANY OF ITS EMPLOYED ITHER THE DEPARTMENTHE GENERAL SERVICE FOR ITS EMPLOYEES OR FOR THE CONTRACT AWARD LOYEES OR SUBCONTRACT AND THE CONTRACT, AND THE CONTRACT.	TO F HEALTH AND S ADMINISTRATION SUBCONTRACTORS ADED AS A RESULT ACTORS APPEARS OF CRACT WILL BE TE	HUMAN SERVICES, N (GSA). APPEAR ON EITHER OF THIS INVITATION N EITHER LISTING, MY RMINATED. THE
THE BIDDER FURTHER CERTIFIES:			
* COMPLIANCE WITH ALL INSTRUCTIONS TO B  * THIS BID IS MADE WITHOUT COLLUSION OR  * THAT ALL TAXES DULY ASSESSED BY THE S FRANCHISE TAXES, PRIVILEGE TAXES, SAL LIABLE HAVE BEEN PAID.  * THAT IF MY BID IS ACCEPTED WITHIN FURNISH ANY OR ALL OF THE ITEMS (OR S  * DELIVERY WILL BE MADE WITHIN	FRAUD. TATE OF LOUISIANA FER TAXES AND ALL OF DAYS FER ECTIONS) AT THE PROPERTY OF THE PROPERT	AND IT'S SUBDIVIENTER TAXES FOR WE ROM BID CLOSING COME TO SERVICE COPPOSITE EAC.	SIONS, INCLUDING HICH THE FIRM IS TIME, MY FIRM WILL H ITEM (OR SECTION).
VENDOR PHONE NUMBER:	TITLE		DATE
FAX NUMBER:	NAME OF	BIDDER	
SIGNATURE OF AUTHORIZED BIDDER (MUST BE SIGNED)		R PRINTED)	

STANDARD TERMS & CONDITIONS	Page 2 of 8
NUMBER : 005558 OPEN DATE : 06/03/2010 TIME: 02:00 PM	BIDDER:

- 6. DESIRED DELIVERY: 10 DAYS ARO, UNLESS SPECIFIED ELSEWHERE
- 7. TO ASSURE CONSIDERATION, ALL BIDS SHOULD BE SUBMITTED IN THE SPECIAL ENVELOPE, OR USE BID LABEL IF FURNISHED FOR THAT PURPOSE. IN THE EVENT YOUR BID CONTAINS BULKY SUBJECT MATERIAL, THE SPECIAL BID ENVELOPE SHOULD BE FIRMLY AFFIXED TO THE MAILING ENVELOPE.
- 8. BIDS SUBMITTED ARE SUBJECT TO PROVISIONS OF THE LAWS OF THE STATE OF LOUISIANA INCLUDING BUT NOT LIMITED TO L.R.S. 39:1551-1736; PURCHASING RULES AND REGULATIONS; EXECUTIVE ORDERS; STANDARD TERMS AND CONDITIONS; SPECIAL CONDITIONS; AND SPECIFICATIONS LISTED IN THIS SOLICITATION.
- 9. IMPORTANT: THIS BID IS TO BE MANUALLY SIGNED IN INK BY A PERSON AUTHORIZED TO BIND THE VENDOR (SEE NO.31).
- 10.INQUIRIES: ADDRESS ALL INQUIRIES AND CORRESPONDENCE TO THE BUYER AT THE PHONE NUMBER AND ADDRESS SHOWN ABOVE.
- 11.BID FORMS: ALL WRITTEN BIDS, UNLESS OTHERWISE PROVIDED FOR, SHOULD BE SUBMITTED ON, AND IN ACCORDANCE WITH FORMS PROVIDED, PROPERLY SIGNED (SEE #31). BIDS MUST BE RECEIVED AT THE ADDRESS SPECIFIED IN THE SOLICITATION PRIOR TO BID OPENING TIME IN ORDER TO BE CONSIDERED.
- 12.STANDARDS OR QUALITY. ANY PRODUCT OR SERVICE BID SHALL CONFORM TO ALL APPLICABLE FEDERAL AND STATE LAWS AND REGULATIONS AND THE SPECIFICATIONS CONTAINED IN THE SOLICITATION. UNLESS OTHERWISE SPECIFIED IN THE SOLICITATION, ANY MANUFACTURER'S NAME, TRADE NAME, BRAND NAME, OR CATALOG NUMBER USED IN THE SPECIFICATION IS FOR THE PURPOSE OF DESCRIBING THE STANDARD OF QUALITY, PERFORMANCE, AND CHARACTERISTICS DESIRED AND IS NOT INTENDED TO LIMIT OR RESTRICT COMPETITION. BIDDER MUST SPECIFY THE BRAND AND MODEL NUMBER OF THE PRODUCT OFFERED IN HIS/HER BID. BIDS NOT SPECIFYING BRAND AND MODEL NUMBER SHALL BE CONSIDERED AS OFFERING THE EXACT PRODUCTS SPECIFIED IN THE SOLICITATION.
- 13.DESCRIPTIVE INFORMATION. BIDDERS PROPOSING AN EQUIVALENT BRAND OR MODEL SHOULD SUBMIT WITH THE BID, INFORMATION (SUCH AS ILLUSTRATIONS, DESCRIPTIVE LITERATURE, TECHNICAL DATA) SUFFICIENT FOR LSUHSC TO EVALUATE QUALITY, SUITABILITY, AND COMPLIANCE WITH THE SPECIFICATIONS IN THE SOLICITATION. FAILURE TO SUBMIT DESCRIPTIVE INFORMATION MAY CAUSE BID TO BE REJECTED. ANY CHANGE MADE TO A MANUFACTURER'S PUBLISHED SPECIFICATION SUBMITTED FOR A PRODUCT SHALL BE VERIFIABLE BY THE MANUFACTURER. IF ITEM(S) BID DO NOT FULLY COMPLY WITH SPECIFICATIONS (INCLUDING BRAND AND/OR PRODUCT NUMBER), BIDDER MUST STATE IN WHAT RESPECT ITEMS(S) DEVIATE. FAILURE TO NOTE EXCEPTIONS ON THE BID FORM WILL NOT RELIEVE THE SUCCESSFU BIDDER(S) FROM SUPPLYING THE ACTUAL PRODUCTS REQUESTED.
- 14.BID OPENING. BIDDERS MAY ATTEND THE BID OPENING, BUT NO INFORMATION OR OPINIONS CONCERNING
  THE ULTIMATE CONTRACT AWARD WILL BE GIVEN AT THE BID OPENING OR DURING THE EVALUATION
  PROCESS. BIDS MAY BE EXAMINED WITHIN 72 HOURS AFTER BID OPENING. INFORMATION PERTAINING TO
  COMPLETED FILES MAY BE SECURED BY VISITING LSUHSC DURING NORMAL WORKING HOURS. WRITTEN BID
  TABULATIONS WILL NOT BE FURNISHED.
- 15.AWARDS. AWARD WILL BE MADE TO THE LOWEST RESPONSIBLE AND RESPONSIVE BIDDER. LSUHSC RESERVES THE RIGHT TO AWARD ITEMS SEPARATELY, GROUP, OR IN TOTAL, AND TO REJECT ANY OR ALL BIDS AND WAIVE ANY INFORMALITIES.
- 16.PRICES. UNLESS OTHERWISE SPECIFIED BY LSUHSC IN THE SOLICITATION, BID PRICES MUST BE COMPLETE, INCLUDING TRANSPORTATION PREPAID BY BIDDER TO DESTINATION AND FIRM FOR ACCEPTANCE FOR A MINIMUM OF 30 DAYS. IF ACCEPTED, PRICES MUST BE FIRM FOR THE CONTRACTUAL PERIOD. BIDS OTHER THAN F.O.B. DESTINATION MAY BE REJECTED. PRICES SHOULD BE QUOTED IN THE UNIT (EACH,

STANDARD TERMS & CONDITIONS		Page 3 of 8
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BOX, CASE, ETC.) AS SPECIFIED IN THE SOLICITATION.

- 17.DELIVERIES. BIDS MAY BE REJECTED IF THE DELIVERY TIME INDICATED IS LONGER THAN THAT SPECIFIED IN THE SOLICITATION.
- 18. TAXES. VENDOR IS RESPONSIBLE FOR INCLUDING ALL APPLICABLE TAXES IN THE BID PRICE. LSUHSC AGENCIES ARE EXEMPT FROM ALL STATE AND LOCAL SALES AND USE TAXES.
- 19.NEW PRODUCTS. UNLESS SPECIFICALLY CALLED FOR IN THE SOLICITATION, ALL PRODUCTS FOR PURCHASE MUST BE NEW, NEVER PREVIOUSLY USED, AND THE CURRENT MODEL AND/OR PACKAGING. NO REMANUFACTURED, DEMONSTRATOR, USED OR IRREGULAR PRODUCT WILL BE CONSIDERED FOR PURCHASE UNLESS OTHERWISE SPECIFIED IN THE SOLICITATION. THE MANUFACTURER'S STANDARD WARRANTY WILL APPLY UNLESS OTHERWISE SPECIFIED IN THE SOLICITATION.
- 20.CONTRACT CANCELLATION. THE STATE OF LOUISIANA HAS THE RIGHT TO CANCEL ANY CONTRACT, IN ACCORDANCE WITH PURCHASING RULES AND REGULATIONS, FOR CAUSE INCLUDING BUT NOT LIMITED TO THE FOLLOWING: (1) FAILURE TO DELIVER WITHIN THE TIME SPECIFIED IN THE CONTRACT; (2) FAILURE OF THE PRODUCT OR SERVICE TO MEET SPECIFICATIONS, CONFORM TO SAMPLE QUALITY OR TO BE DELIVERED IN GOOD CONDITION; (3) MISREPRESENTATION BY THE CONTRACTOR; (4) FRAUD, COLLUSION CONSPIRACY OR OTHER UNLAWFUL MEANS OF OBTAINING ANY CONTRACT WITH THE STATE; (5) CONFLICT OF CONTRACT PROVISIONS WITH CONSTITUTIONAL OR STATUTORY PROVISIONS OF STATE OR FEDERAL LAW; (6) ANY OTHER BREACH OF CONTRACT.
- 21.DEFAULT OF CONTRACT. FAILURE TO DELIVER WITHIN THE TIME SPECIFIED IN THE BID WILL

  CONSTITUTE A DEFAULT AND MAY CAUSE CANCELLATION OF THE CONTRACT. WHERE THE UNIVERSITY HAS

  DETERMINED THE CONTRACTOR TO BE IN DEFAULT, THE UNIVERSITY RESERVES THE RIGHT TO PURCHASE AN

  OR ALL PRODUCTS OR SERVICES COVERED BY THE CONTRACT ON THE OPEN MARKET AND TO CHARGE THE

  CONTRACTOR WITH COST IN EXCESS OF THE CONTRACT PRICE. UNTIL SUCH ASSESSED CHARGES HAVE BEEN

  PAID, NO SUBSEQUENT BID FROM THE DEFAULTING CONTRACTOR WILL BE CONSIDERED.
- 22.ORDER OF PRIORITY. IN THE EVENT THERE IS A CONFLICT BETWEEN THE INSTRUCTIONS TO BIDDERS OR STANDARD CONDITIONS AND THE SPEICAL CONDITIONS, THE SPECIAL CONDITIONS SHALL GOVERN.
- 23.APPLICABLE LAW. ALL CONTRACTS SHALL BE CONSTRUED IN ACCORDANCE WITH AND GOVERNED BY THE LAWS OF THE STATE OF LOUISIANA.
- 24.EQUAL OPPORTUNITY. BY SUBMITTING AND SIGNING THIS BID, BIDDER AGREES THAT HE/SHE WILL NOT DISCRIMINATE IN THE RENDERING OF SERVICES TO AND/OR EMPLOYMENT OF INDIVIDUALS BECAUSE OF RACE, COLOR, RELIGION, SEX, AGE, NATIONAL ORIGIN, HANDICAP, DISABILITY, VETERAN STATUS, OR A OTHER NON-MERIT FACTOR.
- 25.SPECIAL ACCOMMODATIONS. ANY "QUALIFIED INDIVIDUAL WITH DISABILITY" AS DEFINED BY THE AMERICANS WITH DISABILITIES ACT WHO HAS SUBMITTED A BID AND DESIRES TO ATTEND THE BID OPENING, MUST NOTIFY THIS OFFICE IN WRITING NOT LATER THAN SEVEN DAYS PRIOR TO THE BID OPENING DATE OF THEIR NEED FOR SPECIAL ACCOMMODATIONS. IF THE REQUEST CANNOT BE REASONABLY PROVIDED, THE INDIVIDUAL WILL BE INFORMED PRIOR TO THE BID OPENING.
- 26.IDEMNITY. CONTRACTOR AGREES, UPON RECEIPT OF WRITTEN NOTICE OF A CLAIM OR ACTION, TO DEFEND THE CLAIM OR ACTION, OR TAKE OTHER APPROPRIATE MEASURE, TO IDEMNIFY, AND HOLD HARMLESS, LSUHSC, ITS OFFICERS, ITS AGENTS AND ITS EMPLOYEES FROM AND AGAINST ALL CLAIMS AND ACTIONS FOR BODILY INJURY, DEATH OR PROPERTY DAMAGES CAUSED BY THE FAULT OF THE CONTRACTOR,

STANDARD TERMS & CONDITIONS	Page 4 of 8
NUMBER : 005558 OPEN DATE : 06/03/2010 TIME: 02:00 PM	BIDDER:
EXTENT OF THE FAULT OF THE CONTRACTOR THE CONTRACTOR SHALL HAVE NO OBLIGAT ACTION FROM BODILY INJURY, DEATH OR UNIVERSITY, ITS OFFICERS, ITS AGENTS 27.INTERPRETATION OF DOCUMENT: ANY INT BE MADE BY AN ADDENDUM ISSUED IN WRI BE MAILED OR DELIVERED TO EACH PERSO QUOTATION DOCUMENTS. LSUHSC WILL NO INTERPRETATION OF THE DOCUMENTS. 28.ACCEPTANCE OF BID: ONLY THE ISSUANC ACCEPTANCE ON THE PART OF LSUHSC. 29.ADHERENCE TO JCAHO STANDARDS: WHERE COMMISSION ON ACCREDITATION OF HEALT SUBCONTRACTORS, AND VENDORS AGREE TO COMMISSION. 30.PREFERENCE: IN ACCORDANCE WITH LOUI ALLOWED FOR PRODUCTS MANUFACTURED, E QUALITY. DO YOU CLAIM THIS PREFEREN SPECIFY THE LINE NUMBER (S)	TERPRETATION OF THE BID OR QUOTATION DOCUMENT WILL ONLY OF THE PURCHASING DEPARTMENT. SUCH ADDENDUM WILL ON RECEIVING A SET OF THE ORIGINAL BID OR OF BE RESPONSIBLE FOR ANY OTHER EXPLANATION OR  THE OF A PURCHASE ORDER OR A SIGNED CONTRACT CONSTITUTES OF APPLICABLE, LSUHSC IS ACCREDITED BY THE JOINT OF THE ORGANIZATIONS AND AS SUCH ALL CONTRACTORS, OF ADHERE TO THE APPLICABLE STANDARDS PROMULGATED BY THE OF THE ORGANIZATIONS AND ASSEMBLED IN LOUISIANA OF EQUAL OF THE ORGANIZATION OR ASSEMBLED IN LOUISIANA OF EQUAL OF THE ORGANIZATION OF THE
IF SO, DO YOU CERTIFY THAT AT LEAST  COMPRISED OF LOUISIANA RESIDENTS?  YES	FIFTY PERCENT (50%) OF YOUR LOUISIANA WORKFORCE IS  N MAY CAUSE ELIMINATION FROM PREFERENCES.  ICE CONTRACTS.  WITH L.R.S. 39:1594 (ACT 121), THE PERSON SIGNING THE  ARTHERSHIP MEMBER OR OTHER INDIVIDUAL SPECIFICALLY REFLECTED IN THE APPROPRIATE RECORDS ON FILE WITH THE

SPECIAL TER	MS & CONDITIO	NS				Page 5	of 8
NUMBER OPEN DATE		TIME: 02:00	BIDDER:	:			
IOTE: ALL	ITEMS MUST BE	RECEIVED AND	INVOICED BY JU	JNE 29, 2010.			
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PRICE SHEET			Page 6 of 8
NUMBER : 005558		BIDDER:	
OPEN DATE : 06/03/2010	TIME: 02:00 PM		

HALLESS	<b>SPECIFIED</b>	FI	SEWHERE	SHIP	TO:
UNLESS	SECILIED			01111	

Line	Description			Unit Price	Extended Amount
1	Sony EVID 100 Pan/Tilt/Zoom Camera  Specify brand, model bid(if applicable)	5.00	EA		
2	Sony RC893/1 RS232C 3m Cable  Specify brand, model bid(if applicable)	<i>10</i> . oc	EA		
3	Innovative Communications Inc. WM-100B Wall Mount	5.00	EA		
	Specify brand, model bid(if applicable)				
4	Shure SLX14/93 Wireless Lapel Microphone	2.00	EA		
	Specify brand, model bid(if applicable)				
5	Crown CM-31W Ceiling Microphone  Specify brand, model bid(if applicable)	4.00	EA		
6	Polk Audion OWM3- White Wall Mounted Speaker	2.00	EA		-
	Specify brand, model bid(if applicable)				
7	Extron DVI 201 TX/RX 60-734-03 DVI Twisted Pair Extender Transmistter / Receiver Set	4.00	EA		
	Specify brand, model bid(if applicable)				
8	LG LD450 37" LCD Monitor  Specify brand, model bid(if applicable)	4.00	EA		
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NUMBER : 005558	BIDDER:	
OPEN DATE : 06/03/2010 TIME: 02:00 PM		

UNLESS SPECIFIED ELSEWHERE SHIP TO:

Line	Description			Unit Price	Extended Amount
<u>No.</u> 9	Peerless ST650 Wall Mount for 37" LCD Monitor	4.00 E	EA		
	Specify brand, model bid(if applicable)				
10	Sony RMBR300 Remote Control Unit for EVI-D100	2.00 E	EA		
	Specify brand, model bid(if applicable)				
11	Atlas Sound A35 Amplifier	2.00 E	EA		
	Specify brand, model bid(if applicable)				
12	Shure SCM262 Mixer	1.00 E	EA		
	Specify brand, model bid(if applicable)				
13	Extron MAV Plus 88 AV 60-658EX Video Switcher (8 x 4)	1.00 E	EA		
	Specify brand, model bid(if applicable)				
14	Extron DXP 48 DVI Pro 60-1009-01	1.00 E	EA		
	Specify brand, model bid(if applicable)				
15	Extron DMP 64 60-1054-01 Audio Switcher / Mixer	2.00 E	EA		
	Specify brand, model bid(if applicable)				
16	Extron DVI DA4 60-922-01 DVI Distribution Amplifier (1 x 4)	4.00 E	EA		
	Specify brand, model bid(if applicable)				

PRICE SH	EET				Pa	ge8 of 8
NUMBER		BIDDER:				
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UNL	ESS SPECIFIED ELSEWHERE SHIP TO:					
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Line	Description				Unit Price	Extended Amount
No.	777 1053	G				
17	Kramer KR-105A 3.5mm Distribution Amplifier	Stereo Audio	2.00	EA		
	Distribution Amplifier					
	Specify brand, model bid(if application)	able)				
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# SONY EVID100 PAN/TILT/ZOOM COLOR VIDEO CAMERA

Effective Pixels	768 (H) x 494 (V)
_ens	10x Optical Zoom
	40x with Digital Zoom
•	f = 3.1 to 31
	F 1.8 to 2.9
ens Value	10x
Minimum Object Distance	100 mm (Wide end) 600 mm (Tele end)
Auto Exposure	Auto
	Manual
	Priority AE
	Exposure compensation Back light Compensation
Shutter Speed	1/4 to 1/10000 s
White Balance	Auto
Time balance	ATW
	Manual
	One Push
	3200K
ı	5800K
Pan Angle/Speed	Pan: ± 100 degrees
	Max speed: 300 degrees/sec
Filt Angle/Speed	Tilt: ± 25 degrees
	Max speed: 125 degrees/sec
Horizontal Viewing Angle	6.6 to 65 degrees
Resolution Value	470 TV Lines
Picture Effects	Mirror Image
	Still Image on Field Memory
	Pastel Image
	Negative/Positive Reversal
	Sepia Image
	Monochrome Image Enhanced Contrast
	Mosaic Image
•	Vertical Stretch
	Horizontal Stretch
	Motion Image on Still Image
	Continuous Still Image
	Motion Images on Binaried Still Image
	After-image Lag of Moving Object

	Horizontal Resolution	470 TV lines (Wide end)
	Minimum Illumination	3.5 lx (F1.8)
44.	S/N Ratio	More than 50 dB
	Signal System	NTSC
	General Specifications	Detail:
		4 1/2 x 4 3/4 x 5 1/4 inches (113 x 120 x 132 mm)
	Weight	1 lb 14 oz (860 g)

Features	Benefits:
High Speed, Wide Range Pan/Tilt Head	The EVI-D100 camera moves to a designated position quickly and immediately with one of the highest pan/tilt speeds in its class.
Quiet Operation	Direct drive motors account for the gear-less structure of the camera, reducing the noise of pan/tilt motion drastically compared to conventional models.
40x Zoom Ratio (10x Optical + 4x Digital)	Fast and stable auto focus zoom lens reaches 40x zoom for hands free operation
Built-in Conversion Lens for Wide Angle View (65 degrees)	A newly developed wide-angle lens for wide field of view image capture, make it ideal for use in small-sized rooms.
Auto Sleep Function	The camera can be set to automatically turn off when not in use after a specified time period.
Various Picture Effects	Negative/Positive Reversal, Black White (Monochrome Image).
Six Position Presets with Battery Back-up	An integral back-up battery stores presets of pan/tilt/zoom, focus position, AE mode and white balance mode, even when the camera is powered off.
Multi-function IR Remote Commander® unit	Easy to use supplied remote commander unit is useful for basic pan/tilt/zoom camera control.
Fully Controllable Remotely via RS-232C (VISCA)	Control all camera settings and pan/tilt/zoom functions remotely via PC.
Camera Specifications	Detail:
Effective Pixels	768 (H) x 494 (V)
Lens	10x Optical Zoom 40x with Digital Zoom f = 3.1 to 31 F 1.8 to 2.9
Lens Value	10x
Minimum Object Distance	100 mm (Wide end)

600 mm (Tele end)	
Auto	
Manual	
Priority AE	
Exposure compensation	

Shutter Speed 1/4 to 1/10000 s

White Balance Auto ATW Manual One Push

Auto Exposure

3200K 5800K

Pan: ± 100 degrees Pan Angle/Speed

Max speed: 300 degrees/sec

Back light Compensation

Tilt Angle/Speed Tilt: ± 25 degrees

Max speed: 125 degrees/sec

Horizontal Viewing Angle 6.6 to 65 degrees

470 TV Lines Resolution Value

Picture Effects Mirror Image

Still Image on Field Memory Pastel Image Negative/Positive Reversal

Sepia Image Monochrome Image **Enhanced Contrast** Mosaic Image Vertical Stretch Horizontal Stretch

Motion Image on Still Image

Continuous Still Image
Motion Images on Binaried Still Image
After-image Lag of Moving Object

**Video Output Specifications** Detail: 470 TV lines (Wide end) Horizontal Resolution

Minimum Illumination 3.5 lx (F1.8)

S/N Ratio More than 50 dB

Signal System NTSC

**General Specifications** Detail:

Dimensions (W x H x D) 4 1/2 x 4 3/4 x 5 1/4 inches (113 x 120 x 132 mm)

Weight 1 lb 14 oz (860 g)

Power Requirements DC 10.8 to 13.0 V

Power Consumption	Max. 13.2 W (at 12 Vdc)
Operating Temperature	0 to 40°C (32 to 40°F)
Storage Temperature	-20 to 60°C (-4 to 140°F)



### **SLX Wireless System Specifications**

#### **SHURE SLX WIRELESS**

Sound installations and working bands need powerful wireless tools that can be set up quickly and used fearlessly. Shure's rugged SLX UHF Wireless Systems more than deliver with innovative setup features, exceptional wireless clarity, and legendary Shure microphones. Offering up to 20 compatible systems in a single installation, SLX smoothly integrates into houses of worship, lecture halls, conference rooms, and mobile gear cases.

#### SYSTEM FEATURES

Auto Frequency Selection

· Locates a clear channel instantly

Auto Transmitter Setup

 Infrared link automatically synchronizes the transmitter and receiver

#### **RECEIVER FEATURES**

- Detachable 1/4 wave antennas
- Backlit LCD
- · Rack-mount hardware included
- 1/4" and XLR audio outputs

#### HANDHELD AND BODYPACK TRANSMITTER FEATURES

- · Choice of Shure handheld microphones
- Bodypack works with headworn, lavalier and instrument microphones and cables
- · Timed backlit LCD
- · Frequency and power lockout

#### Shure's patented Audio Reference Companding

- Delivers crystal-clear audio transmission, far superior to conventional wireless technology
- Frequency and power lockout
- Volume control on rear of unit
- · Rugged metal construction
- 2 AA batteries (included) provide 8 hours of continuous use
- 100m (300 ft.) operating range
- Battery fuel gauge

#### **ARCHITECT'S SPEC**

The wireless system shall operate in the UHF band between 524 MHz and 865 MHz, with the specific available frequency range being dependent on the user's locale. Effective range of the system, receiver to transmitter, shall be 100 meters (300 ft.), under optimal conditions. Each system shall allow selection of over 960 operating frequencies across 24 MHz of bandwidth in order to avoid RF interference. Optimal frequencies shall be selected automatically, ensuring that individual systems run at their highest level of performance, and that multiple systems in simultaneous use do not interfere with one another.

An infrared signal beamed from the receiver shall be used to synchronize the frequency between the transmitter and the receiver. The process of synchronizing the system shall be simple and instantaneous.

Each transmitter shall be powered by two AA batteries. Transmitters shall have a power on–off/mute switch, as well as a timed backlit LCD showing frequency group and channel, locked/unlocked status, and battery strength. Available transmitters shall include a bodypack for use with guitars, basses, and other electric instruments, as well as lavalier, headset or instrument microphones, and a handheld transmitter for vocals. The bodypack shall include a 3–position switch and the handheld transmitter shall include a 2–position switch to compensate for higher- or lower-gain devices. Both transmitters shall feature an easily accessible infrared port for system synchronization.

The receiver shall have a multi-function display showing group, channel, frequency, transmitter battery strength, and locked/unlocked status. The system shall use diversity technology to improve reception, minimize signal dropouts, and achieve the best possible signal-to-noise ratio. The receiver shall include an audio level meter and an infrared port for system synchronization.

The system shall be the Shure SLX Wireless.

#### **SPECIFICATIONS**

#### System

#### Frequency Range and Transmitter Output Level

Band	Range	Transmitter output
G4	470-494 MHz	30 mW
G5	494–518 MHz	30 mW
H5	518–542 MHz	30 mW
J3	572-596 MHz	30 mW
L4	638-662 MHz	30 mW
P4	702-726 MHz	30 mW
R13	794-806 MHz	20 mW
R5	800-820 MHz	20 mW
S6	838–865 MHz	10 mW
JB	806810 MHz	10 mW
Q4	740–752 MHz	10 mW

NOTE: This Radio apparatus may be capable of operating on some frequencies not authorized in your region. Please contact your national authority to obtain information on authorized frequencies for wireless microphone products in your region.

#### **Operating Range Under Typical Conditions**

100m (300 ft.)

Note: actual range depends on RF signal absorption, reflection, and interference

#### Audio Frequency Response (+/- 2 dB)

Minimum: 45 Hz Maximum: 15 kHz

(Overall system frequency depends on microphone element.)

#### Total Harmonic Distortion (ref. +/- 38 kHz deviation, 1 kHz tone)

0.5%, typical

#### **Dynamic Range**

>100 dB A-weighted

#### **Operating Temperature Range**

-18°C (0°F) to +50°C (+122°F)

Note: battery characteristics may limit this range

#### **Transmitter Audio Polarity**

Positive pressure on microphone diaphragm (or positive voltage applied to tip of WA302 phone plug) produces positive voltage on pin 2 (with respect to pin 3 of low impedance output) and the tip of the high impedance 1/4-inch output.

#### SLX1 Bodypack Transmitter

#### **Audio Input Level**

- -10 dBV maximum at mic gain position
- +10 dBV maximum at 0 dB gain position
- +20 dBV maximum at -10 dB gain position

#### **Gain Adjustment Range**

30dB

#### Input Impedance

1 ΜΩ

#### **RF Transmitter Output**

30 mW maximum (dependent on applicable country regulations)

#### Dimensions

108 mm H x 64 mm W x 19 mm D (4.25 x 2.50 x 0.75 in.)

#### Weight

81 grams (3 oz.) without batteries

#### Housing

Molded ABS case

#### **Power Requirements**

2 "AA" size alkaline or rechargeable batteries

#### **Battery Life**

>8 hours (alkaline)

#### SLX2 Handheld Transmitter

#### **Audio Input Level**

+2 dBV maximum at -10dB position -8 dBV maximum at 0dB position

#### Gain Adjustment Range

10dB

#### **RF Transmitter Output**

30 mW maximum (dependent on applicable country regulations)

#### Dimensions (including SM58 cartridge)

254 mm x 51 mm dia. (10 x 2 in.)

#### Weight

290 grams (10.2 oz.) without batteries

#### Housing

Molded PC/ABS handle and battery cup

#### **Power Requirements**

2 "AA" size alkaline or rechargeable batteries

#### **Battery Life**

>8 hours (alkaline)

#### SLX4 Receiver

#### **Dimensions**

42 mm H x 197 mm W x 134 mm D (1.65 x 7.76 x 5.28 in.)

#### Weight

816 g (1 lb. 13 oz.)

#### Housing

Galvanized steel

#### Audio Output Level (ref. +/- 38 kHz deviation with 1 kHz tone)

XLR connector (into 600  $\Omega$  load): –13 dBV 1/4 inch connector (into 3000  $\Omega$  load): –2 dBV

#### **Output impedance**

XLR connector: 200  $\Omega$  1/4 inch connector: 1k $\Omega$ 

#### XLR output

Impedance balanced

Pin 1: Ground

Pin 2: Audio

Pin 3: No signal

#### Sensitivity

-105 dBm for 12 dB SINAD, typical

#### Image Rejection

>70 dB, typical

#### **Power Requirements**

12-18 Vdc at 150 mA, supplied by external power supply

#### REPLACEMENT PARTS AND ACCESSORIES

#### Replacement Parts (all systems)

Microphone Stand Adapter (SLX2)	WA371
Zipper Bag (SLX1)	26A13
Zipper Bag (SLX2)	26A14
Short Rack Bar	53A8571
Long Rack Bar	53A8572
Link Bar	53A8443
Antenna extension cables (2)	95A9023

#### Replacement Parts (system-specific)

AC Adapter (120 VAC, 60 Hz)	PS20
AC Adapter (230 VAC, 50/60 Hz, Europlug)	PS20E
AC Adapter (230 VAC, 50/60 Hz, UK)	PS20UK
AC Adapter (100 VAC, 50/60 Hz)	PS20J
SM58 Head with Grille (SLX2/SM58)	RPW112
SM86 Head with Grille (SLX2/SM86)	RPW114
BETA 58 Head with Grille SLX2/BETA 58	RPW118
BETA 87A Head with Grille (SLX2/BETA 87A)	RPW120
BETA 87C Head with Grille (SLX2/BETA 87C)	RPW122
Matte Silver Grille (SLX2/SM58)	RK143G
Matte Silver Grille (SLX2/SM86)	RPM266
Matte Silver Grille (SLX2/BETA 58)	RK265G
Matte Silver Grille (SLX2/BETA 87A)	RK312
Matte Silver Grille (SLX2/BETA 87C)	RK312
Belt Clip	44A8030
1/4-Wave Antenna (518-752 MHz)	UA400B
1/4-Wave Antenna (748–865 MHz)	UA400

#### **Optional Accessories**

Carrying Case	WA610
Black Grille (SLX2/BETA 58)	RK323G
Black Grille (SLX2/BETA 87A)	RK324G

#### Antenna Combiners and Accessories

Antennas and receivers must be from the same band.

The supplied 1/4 wave antennas can be used when mounted directly to the UA844. If antennas are remote mounted, 1/2 wave antennas must be used.

Antennas and cables are for use with UA844, and cannot be used with stand-alone SLX receivers.

Passive Antenna/Splitter Combiner Kit (recommended for 2 receivers)	UA221
UHF Antenna Power Distribution Amplifier (recommended for 3 or more receivers)	
U.S.A.	UA844US
Europe	UA844E
UK	UA844UK
1/2 Wave Antenna Remote Mount Kit	UA500
1/2 wave antenna	
H5 Band	UA820H
J3 Band	UA820D
L4 Band	UA820L
P4, Q4 Bands	UA820B
R13, R5, S6, JB Bands	UA820A
25' Antenna Cable	UA825
50' Antenna Cable	UA850
100'Antenna Cable	UA100



SHURE Incorporated http://www.shure.com
United States, Canada, Latin America, Caribbean:
5800 W. Touhy Avenue, Niles, IL 60714-4608, U.S.A.
Phone: 847-600-2000 U.S. Fax: 847-600-1212 Intl Fax: 847-600-6446
Europe, Middle East, Africa:
Shure Europe GmbH, Phone: 49-7131-72140 Fax: 49-7131-721414
Asia, Pacific:

Shure Asia Limited, Phone: 852-2893-4290 Fax: 852-2893-4055

The CM-31 consists of two parts: the microphone with a permanently attached 30-foot (9.15-m) cable and the cylindrical electronics power module.

The mic cable connects to the power module. which adapts the microphone for phantom powering and includes a low-cut switch. Cable connection is via miniature 3-pin connectors. The power module output is balanced, low impedance. It is protected against static and radio-frequency interference.

The CM-31 has a smooth, wide-range frequency response for natural reproduction of the singing voice, organ or other musical instruments. Extreme low frequencies are fi Itered out to reduce pickup of room rumble.

The microphone has a built-in removable hanger which allows easy position adjustment. The CM-31 microphone and cable are black; the CM-31W microphone and cable are white.

#### Specifi cations

Type: Unidirectional condenser. Transducer: Electret condenser.

Frequency Response (typical): 40 Hz to 20,000 Hz

(see Fig. 1).

Polar Pattern: Supercardioid (see Fig. 2).

impedance: 150 ohms, balanced. Recommended

minimum load impedance 1000 ohms.

Open Circuit Sensitivity: 10 mV/Pa\* (-40 dB re 1

volt/Pa).

Power Sensitivity: -37.5 dB re 1 mW/Pa.

Equivalent Noise Level: 28 dB SPL typical (0 dB =

.0002 dyne/cm2), A-weighted. S/N Ratio: 66 dB at 94 dB SPL.

Maximum Sound Pressure Level: 120 dB SPL

produces 3% THD.

Mic-Cable Connector: TA3F (mini XLR-type).

Power Module Connector (input): TB3M (mini XLRtype).

Power Module Connector (output): 3-pin male XLRtype.

Power Module Switch: Flat/low-cut.

Operating Voltage: Phantom power, 12 to 48 volts DC, positive voltage on pins 2 and 3 with respect to pin 1 of output connector.

Materials: Brass housing, steel power module housing.

Finish: Black (CM-31) or white (CM-31W).

Weight (microphone and cable): 4 ounces (113

grams).
Weight (microphone, cable and power module): 9.5

ounces (269 grams).

Cable: Black (CM-31) or white (CM-31W), 30' (9.15m) 2-conductor shielded 0.1" (.254-cm) diameter cable from microphone to electronics; none supplied for electronics output. Use 2-conductor shielded microphone cable.

Dimensions: See Fig. 5 on reverse side.

Included Accessories: WS5 black foam windscreen for CM-31, WS5W white foam windscreen for

CM-31W.



#### OWM3

#### **Driver Complements**

Mid/Woofer

1 - 4-1/2" Diameter (11.43cm)

Polypropylene Cone

Midrange

Tweeter

1 - 1" Diameter (2.54cm)

Silk Dome Dynamic Balance

#### **Electrical**

Overall Frequency

Response

80-25KHz

Lower -3dB Limit

100Hz dB

Upper -3dB Limit

22KHz dB

Nominal Impedance

8 ohms

Recommended

Amplifier Power

20-100 w/channel

Efficiency

89 dB

Crossover

2500 Hz

Inputs

5 way binding posts

#### Dimensions

Cabinet Size

10" H x 7" W x 4-1/10" D

(25.40cm H x 17.78cm W x 10.41cm D)

Mounting Options

7 different options- Angled Wall Mount, Corner Mount, Horizontal Wall Mount, Vertical Wall Mount, Shelf/Flat Surface Mount, Horizontal Shelf Mount, Swivel Wall or Ceiling with

optional mount

Enclosure Type

Acoustic Suspension

#### **DVI 201**

#### **DVI Twisted Pair Extender**

#### **Key Features**

- Transmits single link DVI-D/HDMI and RS-232 signals over two CAT 5-type cables
- Sends 720p, 1080i, and XGA (1024x768) signals over 200 feet (60 meters), 1080p/60 and 1920x1200 signals over 100 feet (30 meters) with standard CAT 5e cable
- Extron DTP26 Digital Twisted Pair cable provides added protection from outside interference and increases overall signal transmission distance
- DVI input loop-through
- · Supports DDC and HDCP
- Remote powering of transmitter or receiver

#### VI 201 Tx/Rx

NOTE

\*Appropriate DVI-D to HDMI cables or adapters are required for HDMI signal input/output.

Also, an optional Extron HDMI-to-DVI adapter is required in order to transmit a CEC signal.

#### Video

Maximum data rate	4.95 Gbps (1.65 Gbps per color)
Maximum pixel clock	165 MHz
Resolution range	1920x1200 or 1080p @ 60 Hz
Formats	RGB and YCbCr digital video
Standards	DVI 1.0, HDMI 1.2

#### Video input and loop through — transmitters

Number/signal type	1 single link DVI-D (or HDMI*) input 1 single link DVI-D (or HDMI*) local loop- through
Connectors	
DVI 201 Tx	2 female DVI-D

# Interconnection between transmitter and receiver

Connectors	2 female RJ-45 per unit for 2 cables connecting the transmitter and
	receiver
Termination standards	TIA/EIA T568A or
	15688

Signal transmission distance

1920x1200 or 1080p @ 60 Hz

Extron DTP26 cable Up to 150' (45 m) CAT 5/5e/6 STP Up to 125' (38 m) CAT 5/5e/6 UTP Up to 100' (30 m)

1024x768 or 720p/1080i @ 60 Hz

CAT 5/5e/6 UTP or Up to 200' (60 m)

STP or Extron DTP26

NOTE

The transmission distance varies greatly depending on the signal resolution and on the type of cable, graphics card, and display used in the system.

#### Video output — receivers

Number/signal type 1 single link DVI-D (or

HDMI\*)

Connectors

**DVI 201 Rx** 

2 female DVI-I

# Control/remote — external device (pass-through)

Serial control port input

Transmitter RS-232 via (1) 3.5

mm, 3 pole captive screw connector

Receiver

1 set of proprietary signals on a female RJ-

45 jack

Serial control port output

Transmitter 1 set of proprietary

signals on a female RJ-

45 jack

Receiver

RS-232 via a 3.5 mm, 3 pole captive screw

connector

**NOTE** Pro

Protocol is mirrored between the transmitter and the receiver.

Serial control pin

configurations

Captive screw

connectors: 1 = TX, 2

= RX, 3 = GND

#### General

External power supply 100 VAC to 240 VAC,

50-60 Hz, 6 W max., external; to 12 VDC, 1

A, regulated

Power input requirements 12 VDC, 0.4 A for both

transmitter and

receiver

NOTE

Each transmitter or receiver can be powered either locally by an external power supply or remotely by receiver or transmitter on the other end of the CAT 5/5e/6 or Extron DTP26 cable.

Temperature/humidity Storage: -40 to +158

°F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing

Cooling

Convection, no vents

Mounting

Rack mount

Yes, with optional 1U

rack shelf

Furniture mount

Yes, with optional through-desk mounting

Pole mount

Yes, with optional mounting kit

Enclosure type

Metal

**Enclosure dimensions** 

1.0" H x 4.3" W x 3.0"

D (quarter rack wide) (2.5 cm H x 10.9 cm W

x 7.6 cm D) (Depth excludes connectors.)

Product weight

0.5 lbs (0.3 kg) 3 lbs (2 kg)

Shipping weight Vibration

ISTA 1A in carton (International Safe

Transit Association)

Regulatory compliance

Safety

CE, c-UL, UL

EMI/EMC

CE\*\*, C-tick, FCC Class A\*\*, ICES, VCCI

NOTE

\*\*CE and FCC testing is conducted with STP (shielded twisted pair) cable.

**MTBF** 

30,000 hours

Warranty

3 years parts and labor

NOTE

All nominal levels are at ±10%.

NOTE

Specifications are subject to change

without notice.

(7.6-021110-D20)

# LG #LD450

# **Key Features**

- Full HD 1080p Resolution
- 100,000:1 Dynamic Contrast Ratio
- Picture Wizard II (Easy Picture Calibration)
- Smart Energy Saving
- AV Mode (Cinema, Sports, Game)
- Clear Voice II
- ISFccc® Ready
- 24P Real Cinema
- USB 2.0 (JPEG/MP3)

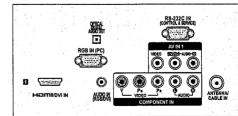
# LCD TV

# 37LD450

PANEL SPECIFICATION	27" Close /27 6" -**
Screen Size	37" Class (37.0" diagonal)
Resolution	1920 x 1080p
Brightness (cd/m²)	TBD
Dynamic Contrast Ratio	100,000:1
Viewing Angle	178°/178°
Response Time (GTG)	4ms
Life Span (Typical)	60,000 hrs
VIDEO	
Built-In Tuner	ATSC/NTSC/Clear QAM
XD® Engine	•
Aspect Ratio	16:9
Aspect Ratio Correction	6 Modes
Just Scan (1:1 Pixel Matching)	
HDMI™	1080p/1080i/720p
Component	1080p/1080i/720p
RF	1080i/720p
Color Temperature Control	3 Modes
24p Real Cinema (5:5/2:2 Pulldown)	•
3:2 Pulldown	•
Picture Reset	•
AV Mode II	•
Picture Mode	7 Modes
ISFccc® Ready	•
x.v.Color <sup>TM</sup>	•
DTV Signal Strength Indicator	•
AUDIO	
Mono/Stereo/Dual (MTS/SAP)	•
Audio Output Power (Watts - THD 10%)	20W (10W x 2)
Speaker System Details	2 Way 4 Speakers
Dolby® Digital Decoder	•
Surround System	Infinite Sound
Bass/Treble/Balance Controls	·······
Clear Voice II	•
Auto Volume Leveler II	
EZ Sound Mode	5 Modes
	5 Modes
SPECIAL FEATURES	
Picture Wizard II	•
Backlight Control	•
Smart Energy Saving	
1080p Source Input	
HDMI™	60p/30p/24p
Component	60p/30p/24p
RGB	60p (WXGA)
A/V Input Navigation	•
Input Labeling	•
Quick View (Flashback)	•
Parental Control w/V-Chip	•
Key Lock	•
Closed Caption	•
Closed Caption	

Auto Tuning/Programming Channel Add/Delete Favorite Channel Programming Auto/Manual Clock On/Off Timer Sleep Timer Auto Off/Auto Sleep (When no video is present) AUDIO/VIDEO INPUTS/OUTPUTS RF In (Antenna/Cable) AV In Component Video In (Y, Pb, Pr) + Audio Digital Audio Out (Optical) HDMI™/HDCP Input (V.1.3 w/Deep Color) RGB In (D-Sub 15pin) - PC PC Audio Input RS-232c In (Control/Service) USB 2.0 (JPEG, MP3) Headphone Out CABINET/ACCESSORIES Cabinet Color Swivel Stand (Degrees) VESA® Compliant (WxH) Remote Control POWER Voltage, Hz On Mode (Average) Standby Mode POWER  Vith Stand (WxHxD) DIV With Stand (WxHxD) TV With Stand (WxHxD) TV With Stand Weight TV With Stand Weight Shipping Weight Sleep (When no video is present) FOW With Stand Weight Shipping Weight  1 (rear) 1 (side) 1 (rear) 1 (side) 1 (rear) 1 (rear) 1 (side) 1 (rear) 1 (rear) 1 (side) 1 (rear) 1 (rear) 1 (rear) 1 (side) 1 (rear) 1 (rear) 1 (rear) 1 (rear) 1 (side) 1 (rear) 1 (rear) 1 (side) 1 (rear) 1 (rear	CONVENIENCE FEATURES	
Channel Add/Delete       •         Favorite Channel Programming       •         Auto/Manual Clock       •         On/Off Timer       •         Sleep Timer       •         Auto Off/Auto Sleep (When no video is present)       •         AUDIO/VIDEO INPUTS/OUTPUTS         RF In (Antenna/Cable)       1 (rear)         AV In       1 (rear) 1 (side)         Component Video In (Y, Pb, Pr) + Audio       1 (rear)         Digital Audio Out (Opticel)       1 (rear)         HDMI™MHDCP Input (V.1.3 w/Deep Color)       1 (rear)         RGB In (D-Sub 15pin) - PC       1 (rear)         PC Audio Input       1 (rear)         RS-232c In (Control/Service)       1 (rear)         USB 2.0 (JPEG, MP3)       1 (side)         Headphone Out       1 (side)         CABINET/ACCESSORIES         Cabinet Color       Glossy Black         Swivel Stand (Degrees)       +20°/-20°         VESA® Compliant (WxH)       • (200mm x 200mm)         Remote Control       1 (Universal)         POWER       100V ~ 240V, 50/60Hz         On Mode (Average)       139W         Standby Mode       >0.1W         DIMENSIONS & WEIGHT       100V ~ 240V, 50/60Hz <t< td=""><td>Language</td><td>4 (English/Spanish/French/Korean)</td></t<>	Language	4 (English/Spanish/French/Korean)
Favorite Channel Programming	Auto Tuning/Programming	•
Auto/Manual Clock On/Off Timer Sleep Timer Auto Off/Auto Sleep (When no video is present) AUDIO/VIDEO INPUTS/OUTPUTS  RF In (Antenna/Cable) AV In Component Video In (Y, Pb, Pr) + Audio Digital Audio Out (Optical) HDMI™/HDCP Input (V.1.3 w/Deep Color) RGB In (D-Sub 15pin) - PC PC Audio Input RS-232c In (Control/Service) USB 2.0 (JPEG, MP3) Headphone Out CABINET/ACCESSORIES  Cabinet Color Swivel Stand (Degrees) VESA® Compliant (WxH) Remote Control POWER  Voltage, Hz On Mode (Average) Standby Mode DIMENSIONS & WEIGHT TV Without Stand (WxHxD) Shipping Dimensions (WxHxD) TV With Stand Weight TS TAUGO TI Weight TV With Stand Weight TS TAUGO TI Weight TV With Stand Weight TV With Stand Weight TV With Stand Weight TV With Stand Weight TS TAUGO TV With Stand Weight TS TAUGO TV With Stand Weight TV With Stand Weight TS TAUGO TO TWENT TO T	Channel Add/Delete	•
On/Off Timer   Sleep Timer   Auto Off/Auto Sleep (When no video is present)   AUDIO/VIDEO INPUTS/OUTPUTS   T (rear)   AUDIO/VIDEO INPUTS/OUTPUTS   T (rear)   T (r	Favorite Channel Programming	•
Sleep Timer	Auto/Manual Clock	•
AUTO Off/Auto Sleep (When no video is present)  AUDIO/VIDEO INPUTS/OUTPUTS  RF In (Antenna/Cable)  AV In  1 (rear)	On/Off Timer	•
AUDIO/VIDEO INPUTS/OUTPUTS  RF In (Antenna/Cable)  AV In  Component Video In (Y, Pb, Pr) + Audio  Digital Audio Out (Optical)  HDMI™/HDCP Input (V.1.3 w/Deep Color)  RGB In (D-Sub 15pin) - PC  PC Audio Input  RS-232c In (Control/Service)  USB 2.0 (JPEG, MP3)  Headphone Out  CABINET/ACCESSORIES  Cabinet Color  Swivel Stand (Degrees)  VESA® Compliant (WxH)  Remote Control  POWER  Voltage, Hz  On Mode (Average)  Standby Mode  DIMENSIONS & WEIGHT  TV Without Stand (WxHxD)  TV Without Stand Weight  TV Without Stand Weight  TV With Stand Weight  TY With Stand Weight	Sleep Timer	•
RF In (Antenna/Cable)	Auto Off/Auto Sleep (When no video is present)	•
AV In  Component Video In (Y, Pb, Pr) + Audio  Digital Audio Out (Optical)  HDMITM/HDCP Input (V.1.3 w/Deep Color)  RGB In (D-Sub 15pin) - PC  PC Audio Input  RS-232c In (Control/Service)  USB 2.0 (JPEG, MP3)  Headphone Out  CABINET/ACCESSORIES  Cabinet Color  Swivel Stand (Degrees)  VESA® Compliant (WxH)  Remote Control  POWER  Voltage, Hz  On Mode (Average)  Standby Mode  DIMENSIONS & WEIGHT  TV Without Stand (WxHxD)  TV Without Stand Weight  TV With Stand Weight  St. I lbs	AUDIO/VIDEO INPUTS/OUTPUTS	
Component Video In (Y, Pb, Pr) + Audio         1 (rear)           Digital Audio Out (Optical)         1 (rear)           HDMITM/HDCP Input (V.1.3 w/Deep Color)         1 (rear)           RGB In (D-Sub 15pin) - PC         1 (rear)           PC Audio Input         1 (rear)           RS-232c In (Control/Service)         1 (rear)           USB 2.0 (JPEG, MP3)         1 (side)           Headphone Out         1 (side)           CABINET/ACCESSORIES           Cabinet Color         Glossy Black           Swivel Stand (Degrees)         +20°/-20°           VESA® Compliant (WxH)         • (200mm x 200mm)           Remote Control         1 (Universal)           POWER         100V ~ 240V, 50/60Hz           On Mode (Average)         139W           Standby Mode         >0.1W           DIMENSIONS & WEIGHT         36.1" x 22.6" x 3.0"           TV Without Stand (WxHxD)         36.1" x 24.6" x 10.3"           Shipping Dimensions (WxHxD)         TBD           TV With Stand Weight         23.8 lbs           TV With Stand Weight         27.6 lbs           Shipping Weight         35.1 lbs	RF In (Antenna/Cable)	1 (rear)
Digital Audio Out (Optical)         1 (rear)           HDMI™/HDCP Input (V.1.3 w/Deep Color)         1 (rear)           RGB In (D-Sub 15pin) - PC         1 (rear)           PC Audio Input         1 (rear)           RS-232c In (Control/Service)         1 (rear)           USB 2.0 (JPEG, MP3)         1 (side)           Headphone Out         1 (side)           CABINET/ACCESSORIES           Cabinet Color         Glossy Black           Swivel Stand (Degrees)         +20°/-20°           VESA® Compliant (WxH)         • (200mm x 200mm)           Remote Control         1 (Universal)           POWER         100V ~ 240V, 50/60Hz           On Mode (Average)         139W           Standby Mode         >0.1W           DIMENSIONS & WEIGHT         36.1" x 22.6" x 3.0"           TV Without Stand (WxHxD)         36.1" x 24.6" x 10.3"           Shipping Dimensions (WxHxD)         TBD           TV With Stand Weight         23.8 lbs           TV With Stand Weight         27.6 lbs           Shipping Weight         35.1 lbs	AV In	1 (rear) 1 (side)
HDMI™/HDCP Input (V.1.3 w/Deep Color)  RGB In (D-Sub 15pin) - PC  PC Audio Input  RS-232c In (Control/Service)  USB 2.0 (JPEG, MP3)  Headphone Out  CABINET/ACCESSORIES  Cabinet Color  Swivel Stand (Degrees)  VESA® Compliant (WxH)  Remote Control  POWER  Voltage, Hz  On Mode (Average)  Standby Mode  DIMENSIONS & WEIGHT  TV Without Stand (WxHxD)  TV Without Stand Weight  TV With Stand Weight  TO Hear?  1 (rear)  1 (side)	Component Video In (Y, Pb, Pr) + Audio	1 (rear)
RGB In (D-Sub 15pin) - PC       1 (rear)         PC Audio Input       1 (rear)         RS-232c In (Control/Service)       1 (rear)         USB 2.0 (JPEG, MP3)       1 (side)         Headphone Out       1 (side)         CABINET/ACCESSORIES         Cabinet Color       Glossy Black         Swivel Stand (Degrees)       +20°/-20°         VESA® Compliant (WxH)       • (200mm x 200mm)         Remote Control       1 (Universal)         POWER       100V ~ 240V, 50/60Hz         On Mode (Average)       139W         Standby Mode       >0.1W         DIMENSIONS & WEIGHT       36.1" x 22.6" x 3.0"         TV Without Stand (WxHxD)       36.1" x 24.6" x 10.3"         Shipping Dimensions (WxHxD)       TBD         TV Without Stand Weight       23.8 lbs         TV With Stand Weight       27.6 lbs         Shipping Weight       35.1 lbs	Digital Audio Out (Optical)	1 (rear)
PC Audio Input       1 (rear)         RS-232c In (Control/Service)       1 (rear)         USB 2.0 (JPEG, MP3)       1 (side)         Headphone Out       1 (side)         CABINET/ACCESSORIES         Cabinet Color       Glossy Black         Swivel Stand (Degrees)       +20°/-20°         VESA® Compliant (WxH)       • (200mm x 200mm)         Remote Control       1 (Universall)         POWER       100V ~ 240V, 50/60Hz         On Mode (Average)       139W         Standby Mode       >0.1W         DIMENSIONS & WEIGHT       TV Without Stand (WxHxD)       36.1" x 22.6" x 3.0"         TV With Stand (WxHxD)       36.1" x 24.6" x 10.3"         Shipping Dimensions (WxHxD)       TBD         TV With Stand Weight       23.8 lbs         TV With Stand Weight       27.6 lbs         Shipping Weight       35.1 lbs	HDMI <sup>TM</sup> /HDCP Input (V.1.3 w/Deep Color)	1 (rear) 1 (side)
RS-232c In (Control/Service) 1 (rear)  USB 2.0 (JPEG, MP3) 1 (side)  Headphone Out 1 (side)  CABINET/ACCESSORIES  Cabinet Color Glossy Black  Swivel Stand (Degrees) +20°/-20°  VESA® Compliant (WxH) • (200mm x 200mm)  Remote Control 1 (Universal)  POWER  Voltage, Hz 100∨ ~ 240∨, 50/60Hz  On Mode (Average) 139W  Standby Mode >0.1W  DIMENSIONS & WEIGHT  TV Without Stand (WxHxD) 36.1″ x 22.6″ x 3.0″  TV With Stand (WxHxD) 36.1″ x 24.6″ x 10.3″  Shipping Dimensions (WxHxD) TBD  TV Without Stand Weight 23.8 lbs  TV With Stand Weight 27.6 lbs  Shipping Weight 35.1 lbs	RGB In (D-Sub 15pin) - PC	1 (rear)
USB 2.0 (JPEG, MP3) 1 (side)  Headphone Out 1 (side)  CABINET/ACCESSORIES  Cabinet Color Glossy Black  Swivel Stand (Degrees) +20°/-20°  VESA® Compliant (WxH) • (200mm x 200mm)  Remote Control 1 (Universal)  POWER  Voltage, Hz 100V ~ 240V, 50/60Hz  On Mode (Average) 139W  Standby Mode >0.1W  DIMENSIONS & WEIGHT  TV Without Stand (WxHxD) 36.1″ x 22.6″ x 3.0″  TV With Stand (WxHxD) 36.1″ x 24.6″ x 10.3″  Shipping Dimensions (WxHxD) TBD  TV Without Stand Weight 23.8 lbs  TV With Stand Weight 27.6 lbs  Shipping Weight 35.1 lbs	PC Audio Input	1 (rear)
Headphone Out         1 (side)           CABINET/ACCESSORIES           Cabinet Color         Glossy Black           Swivel Stand (Degrees)         +20°/-20°           VESA® Compliant (WxH)         • (200mm x 200mm)           Remote Control         1 (Universal)           POWER           Voltage, Hz         100V ~ 240V, 50/60Hz           On Mode (Average)         139W           Standby Mode         >0.1W           DIMENSIONS & WEIGHT         TV Without Stand (WxHxD)           TV With Stand (WxHxD)         36.1" x 22.6" x 3.0"           TV With Stand (WxHxD)         TBD           TV Without Stand Weight         23.8 lbs           TV With Stand Weight         27.6 lbs           Shipping Weight         35.1 lbs	RS-232c In (Control/Service)	1 (rear)
CABINET/ACCESSORIES           Cabinet Color         Glossy Black           Swivel Stand (Degrees)         +20°/-20°           VESA® Compliant (WxH)         • (200mm x 200mm)           Remote Control         1 (Universal)           POWER           Voltage, Hz         100V ~ 240V, 50/60Hz           On Mode (Average)         139W           Standby Mode         >0.1W           DIMENSIONS & WEIGHT         TV Without Stand (WxHxD)           TV With Stand (WxHxD)         36.1" x 22.6" x 3.0"           TV With Stand (WxHxD)         TBD           TV Without Stand Weight         23.8 lbs           TV With Stand Weight         27.6 lbs           Shipping Weight         35.1 lbs	USB 2.0 (JPEG, MP3)	1 (side)
Cabinet Color         Glossy Black           Swivel Stand (Degrees)         +20°/-20°           VESA® Compliant (WxH)         • (200mm x 200mm)           Remote Control         1 (Universal)           POWER           Voltage, Hz         100V ~ 240V, 50/60Hz           On Mode (Average)         139W           Standby Mode         >0.1W           DIMENSIONS & WEIGHT         TV Without Stand (WxHxD)           TV With Stand (WxHxD)         36.1" x 22.6" x 3.0"           TV With Stand (WxHxD)         TBD           TV Without Stand Weight         23.8 lbs           TV With Stand Weight         27.6 lbs           Shipping Weight         35.1 lbs	Headphone Out	1 (side)
Swivel Stand (Degrees)       +20°/-20°         VESA® Compliant (WxH)       • (200mm x 200mm)         Remote Control       1 (Universal)         POWER         Voltage, Hz       100V ~ 240V, 50/60Hz         On Mode (Average)       139W         Standby Mode       >0.1W         DIMENSIONS & WEIGHT       TV Without Stand (WxHxD)       36.1" x 22.6" x 3.0"         TV With Stand (WxHxD)       36.1" x 24.6" x 10.3"         Shipping Dimensions (WxHxD)       TBD         TV Without Stand Weight       23.8 lbs         TV With Stand Weight       27.6 lbs         Shipping Weight       35.1 lbs	CABINET/ACCESSORIES	
VESA® Compliant (WxH)         ● (200mm x 200mm)           Remote Control         1 (Universal)           POWER         100V ~ 240V, 50/60Hz           Voltage, Hz         139W           On Mode (Average)         139W           Standby Mode         >0.1W           DIMENSIONS & WEIGHT         TV Without Stand (WxHxD)           TV With Stand (WxHxD)         36.1" x 22.6" x 3.0"           TV With Stand (WxHxD)         TBD           TV Without Stand Weight         23.8 lbs           TV With Stand Weight         27.6 lbs           Shipping Weight         35.1 lbs	Cabinet Color	Glossy Black
POWER         1 (Universal)           POWER         100V ~ 240V, 50/60Hz           On Mode (Average)         139W           Standby Mode         >0.1W           DIMENSIONS & WEIGHT         TV Without Stand (WxHxD)           TV With Stand (WxHxD)         36.1" x 22.6" x 3.0"           TV With Stand (WxHxD)         36.1" x 24.6" x 10.3"           Shipping Dimensions (WxHxD)         TBD           TV Without Stand Weight         23.8 lbs           TV With Stand Weight         27.6 lbs           Shipping Weight         35.1 lbs	Swivel Stand (Degrees)	+20°/-20°
POWER           Voltage, Hz         100V ~ 240V, 50/60Hz           On Mode (Average)         139W           Standby Mode         >0.1W           DIMENSIONS & WEIGHT           TV Without Stand (WxHxD)         36.1" x 22.6" x 3.0"           TV With Stand (WxHxD)         36.1" x 24.6" x 10.3"           Shipping Dimensions (WxHxD)         TBD           TV Without Stand Weight         23.8 lbs           TV With Stand Weight         27.6 lbs           Shipping Weight         35.1 lbs	VESA® Compliant (WxH)	• (200mm x 200mm)
Voltage, Hz         100V ~ 240V, 50/60Hz           On Mode (Average)         139W           Standby Mode         >0.1W           DIMENSIONS & WEIGHT           TV Without Stand (WxHxD)         36.1" x 22.6" x 3.0"           TV With Stand (WxHxD)         36.1" x 24.6" x 10.3"           Shipping Dimensions (WxHxD)         TBD           TV Without Stand Weight         23.8 lbs           TV With Stand Weight         27.6 lbs           Shipping Weight         35.1 lbs	Remote Control	1 (Universal)
On Mode (Average)         139W           Standby Mode         >0.1W           DIMENSIONS & WEIGHT           TV Without Stand (WxHxD)         36.1" x 22.6" x 3.0"           TV With Stand (WxHxD)         36.1" x 24.6" x 10.3"           Shipping Dimensions (WxHxD)         TBD           TV Without Stand Weight         23.8 lbs           TV With Stand Weight         27.6 lbs           Shipping Weight         35.1 lbs	POWER	
Standby Mode >0.1W  DIMENSIONS & WEIGHT  TV Without Stand (WxHxD) 36.1" x 22.6" x 3.0"  TV With Stand (WxHxD) 36.1" x 24.6" x 10.3"  Shipping Dimensions (WxHxD) TBD  TV Without Stand Weight 23.8 lbs  TV With Stand Weight 27.6 lbs  Shipping Weight 35.1 lbs	Voltage, Hz	100V ~ 240V, 50/60Hz
DIMENSIONS & WEIGHT  TV Without Stand (WxHxD) 36.1" x 22.6" x 3.0"  TV With Stand (WxHxD) 36.1" x 24.6" x 10.3"  Shipping Dimensions (WxHxD) TBD  TV Without Stand Weight 23.8 lbs  TV With Stand Weight 27.6 lbs  Shipping Weight 35.1 lbs	On Mode (Average)	139W
TV Without Stand (WxHxD)         36.1" x 22.6" x 3.0"           TV With Stand (WxHxD)         36.1" x 24.6" x 10.3"           Shipping Dimensions (WxHxD)         TBD           TV Without Stand Weight         23.8 lbs           TV With Stand Weight         27.6 lbs           Shipping Weight         35.1 lbs	Standby Mode	>0.1W
TV With Stand (WxHxD) 36.1" x 24.6" x 10.3"  Shipping Dimensions (WxHxD) TBD  TV Without Stand Weight 23.8 lbs  TV With Stand Weight 27.6 lbs  Shipping Weight 35.1 lbs	DIMENSIONS & WEIGHT	
Shipping Dimensions (WxHxD)  TV Without Stand Weight  TV With Stand Weight  23.8 lbs  TV With Stand Weight  27.6 lbs  Shipping Weight  35.1 lbs	TV Without Stand (WxHxD)	36.1" x 22.6" x 3.0"
TV Without Stand Weight 23.8 lbs TV With Stand Weight 27.6 lbs Shipping Weight 35.1 lbs	TV With Stand (WxHxD)	36.1" x 24.6" x 10.3"
TV With Stand Weight 27.6 lbs Shipping Weight 35.1 lbs	Shipping Dimensions (WxHxD)	TBD
Shipping Weight 35.1 lbs	TV Without Stand Weight	23.8 lbs
	TV With Stand Weight	27.6 lbs
WARRANTY/UPC	Shipping Weight	35.1 lbs
	WARRANTY/UPC	
Limited Warranty 1 Year Parts & Labor	Limited Warranty	1 Year Parts & Labor
UPC 719192177277	UPC	719192177277





REMOTE/INPUT/OUTPUTS (REAR/SIDE)



#### SHURE SCM262 STEREO MICROPHONE MIXER

#### Frequency Response(Ref 1 kHz, channel and master controls centered)

MIC/LINE Inputs: 150 Hz to 20 kHz +/- 2 dB

AUX Inputs: 20 Hz to 20 kHz +/- 2 dB

#### Low-Cut Filter (Microphone inputs only)

3dB down at 80 Hz, 6 dB/octave

#### **Total Harmonic Distortion**

<0.25% at +4 dBu output level, (through 22 Hz -- 22 kHz filter; MIC Input 1 and Master at center, all other controls full counterclockwise)

## Equivalent Input Hum and Noise(150 W source; 22 Hz -- 22 kHz)

125 dBV

### Output Hum and Noise (22 Hz -- 22 kHz; channel controls full counterclockwise)

Master full counterclockwise: -85 dBV

Master full clockwise: -60 dBV

### **Common Mode Rejection**

>70 dB at 1 kHz

#### **Polarity**

All inputs to all outputs are non-inverting.

#### **Overload and Shorting Protection**

Shorting outputs, even for prolonged periods, causes no damage. Microphone inputs are not damaged by signals up to +10 dBV; Line and Aux inputs by signals up to +28 dBV

#### **Equalization**

Bass (Low-frequency shelving, corner frequency at 250 Hz): +/- 6 dB Treble (High-frequency shelving, corner frequency at 4 kHz): +/- 6 dB

#### **Ducking**

Mic channels 1 and 2 Levels: -20 dB or infinite dB

Activation time: 10 ms (typical)

Mic Deactivation time: 2 s (typical)

Jukebox Mute Deactivation Time: 30 s (typical)

#### **Phantom Power**

12 Vdc open-circuit through 680 ohm resistors

#### **Operating Voltage**

SCM262: 100--120 Vac, 50/60 Hz, 60 mA SCM262E: 220--240 Vac, 50/60 Hz, 30 mA

#### **Temperature Range**

Operating: -7 degrees to 49 degrees C (20 degrees to 120 degrees F) Storage: -29 degrees to 74 degrees C (-20 degrees to 165 degrees F)

#### **Overall Dimensions**

43 x 218 x 162 mm (1.72 x 8.60 x 6.37 in.)

#### Net Weight

1.1 kg (2 lbs, 5 oz)

# **Specifications — MAV Plus Series**

2412/2424 Series S-video models

24 x 2 BNC female

/ideo	— video models	
Routir	ng .	
	88 Series	8 x 8 matrix
	816 Series	8 x 16 matrix
	128 Series	12 x 8 matrix
	1212 Series	$12 \times 12$ matrix
	168 Series	16 x 8 matrix
	1616 Series	16 x 16 matrix
	2412 Series	24 x 12 matrix
	2424 Series	24 x 24 matrix
	3216 Series	$32 \times 16$ matrix
	3232 Series	32 x 32 matrix
	•••••	•
Bandy	vidth	150 MHz (-3 dB), fully loaded
	0 MHz to 10 MHz	No more than +0.1 dB to -0.1 dB
	0 - 130 MHz	No more than +0.1 dB to -0.5 dB
Phase	between I/Os	
	2412/2424/3216/3232 Ser	
		<1.28° at 3.58 MHz
	•	1.0° at 3.58 MHz and 4.43 MHz
	•	1.0% at 3.58 MHz and 4.43 MHz
	alk	
Switch	ing speed	200 ns (max.)
/ideo	input — video mo	dels
Numb	er/signal type	
	88/816 Series	8 RGsB, RsGsBs, HDTV, component video, S-video, composite video
		12 RGsB, RsGsBs, HDTV, component video, S-video, composite video
		16 RGsB, RsGsBs, HDTV, component video, S-video, composite video
	1212 Series composite vide	· · · · · · · · · · · · · · · · · · ·
		12 composite video
	2412/2424 Series composi	te video models
		24 composite video
	2412/2424 Series S-video	models
		24 S-video, composite video
	3216/3232 Series composi	te video models
		32 composite video
	3216/3232 Series S-video	models
		32 S-video, composite video
Conne	ctors	
	88/816 Series	8 x 3 BNC female for RGB/HDTV/component video, 8 x 2 BNC female for
		S-video, 8 BNC female for composite video
	128 Series	$12\times3$ BNC female for RGB/HDTV/component video, $12\times2$ BNC female for S-video, $12$ BNC female for composite video
	168/1616 Series	$16 \times 3$ BNC female for RGB/HDTV/component video, $16 \times 2$ BNC female for S-video, $16$ BNC female for composite video
	1212 Series composite vid	eo models
		12 BNC female
	2412/2424 Series composi	
		DA DNIC ( 1.

### Specifications — MAV Plus Series, cont'd

3216/3232 Series composite video models

32 BNC female

3216/3232 Series S-video models

32 x 2 BNC female

Nominal level ....... 1 Vp-p for Y of component video and S-video, and for composite video

0.7 Vp-p for RGB and for R-Y and B-Y of component video

0.3 Vp-p for C of S-video

Minimum/maximum levels....... Analog: 0.5 V to 2.0 Vp-p with no offset

Impedance...... 75 ohms

Return loss..... <-30 dB @ 5 MHz

DC offset (max. allowable)...... 1.5 V

External sync (genlock) ...... 0.3 V to 0.4 Vp-p

#### Video output — video models

Number/signal type

1212/2412/2424/3216/3232 Series composite video models

12, 16, 24, or 32 composite video

1212/2412/2424/3216/3232 Series S-video models

12, 16, 24, or 32 S-video

(follows input type)

Connectors

S-video, 8 BNC female for composite video

1212/2412 Series composite video models

12 BNC female for composite video

1212/2412 Series S-video models

12 BNC female for composite video or

24 BNC female for S-video

816/1616/3216 Series ......  $16 \times 3$  BNC female for RGB/HDTV/component video, or  $16 \times 2$  BNC female

for S-video, or 16 BNC female for composite video

2424 Series ...... 24 BNC female for composite video or

48 BNC female for S-video

3232 Series ....... 32 BNC female for composite video or

64 BNC female for S-video

Nominal level ....... 1 Vp-p for Y of component video and S-video, and for composite video

0.7 Vp-p for RGB and for R-Y and B-Y of component video

0.3 Vp-p for C of S-video

Minimum/maximum levels...... 0.5 V to 2.0 Vp-p (follows input)

Return loss...... <-30 dB @ 5 MHz

DC offset..... ±5 mV with input at 0 offset

Switching type...... Vertical interval

#### Sync — MAV Plus 88/128/1212/168/816/1616 video models

Genlock connectors...... 1 BNC female

#### Sync — MAV Plus 2412/2424/3216/3232 video models

Standards...... NTSC 3.58, NTSC 4.43, PAL, SECAM

Audie	o — audio models	
Rout	ing	
	88 Series	8 x 8 stereo matrix
	816 Series	8 x 16 stereo matrix
	128 Series	12 x 8 stereo matrix
	164 Series	16 x 4 stereo matrix
	168 Series	16 x 8 stereo matrix
	1616 Series	16 x 16 stereo matrix
	248 A	24 x 8 stereo matrix
	2412 Series	24 x 12 stereo matrix
	2424 Series	24 x 24 stereo matrix
	328 A	32 x 8 stereo matrix
	3216 Series	32 x 16 stereo matrix
	3232 Series	32 x 32 stereo matrix
Gain		
	MAV Plus 128 AV RCA	Unbalanced output: 0 dB
		Unbalanced output: -6 dB; balanced output 0 dB
Frequ	iency response	
_	· •	0.03% @ 1 kHz at nominal level
S/N.		>90 dB, balanced, at maximum output (21 dBu), unweighted
		<-80 dB @ 1 kHz, fully loaded
	o channel separation	•
	R	
Audia	o input — audio mo	dola
	<u> </u>	ueis .
Nulli	ber/signal type	10 stores contributed
	MAV Plus 128 AV RCA	
Comm	ectors	8, 12, 16, 24, or 32 stereo, balanced/unbalanced
Colui		12 mains of DCA compactors
		12 pairs of RCA connectors
T		(8, 12, 16, 24, or 32) 3.5 mm captive screw connectors, 5 pole
		>10k ohm, balanced/unbalanced, DC coupled
Nom	inal level	(/0000 0 / 000 4 1040 4
	MAV Plus 2412/2424/3210	6/3232 Series, 328 A, and 248 A
	4.17 .1 1.1	-10 dBV (316 mV)
	All other models	
		+19.5 dBu, (balanced or unbalanced) at 1% THD+N
Inpu	t gain adjustment	-18 dB to +24 dB (default = 0 dB), adjustable per input by RS-232/422 or front panel or by Ethernet
TON	$\mathbf{B}$ 0 dBu = 0.775 Vrnis, 0	$dBV = 1 \ Vrms, \ 0 \ dBV \approx 2 \ dBu$
Audio	o output — audio m	odels
	ber/signal type	
	MAV Plus 128 AV RCA	8 stereo, unbalanced
		4, 8, 12, 16, 24, or 32 stereo, balanced/unbalanced
Conr	nectors	
		8 pairs of RCA connectors
		(4, 8, 12, 16, 24, or 32) 3.5 mm captive screw connectors, 5 pole
Impe		50 ohms unbalanced, 100 ohms balanced
Cain		101 dP shannel to shannel

# Specifications — MAV Plus Series, cont'd

Maximum level (Hi-Z)	
MAV Plus 328 A/248 A	Balanced: >+21 dBu at 0.10% THD+N
	Unbalanced: >+18 at 0.10% THD+N
	>+21 dBu, balanced or unbalanced at 0.10% THD+N
` '	>+15 dBm, balanced or unbalanced at 0.10% THD+N
Output volume range	0 to 64 (-75.8 dB to 0 dB) in 1 dB increments from steps 1 to 64, 12 dB increment from step 0 to 1; default = $64 = 0$ dB
Control/remote — switch	er
Serial host control port	
2412/2424/3216/3232 Seri	ies, 328 A, and 248 A
	1 RS-232 or RS-422, rear panel 9-pin female D connector
All other models	1 bidirectional RS-232 or RS-422, rear panel 9-pin female D connector 1 bidirectional RS-232, front panel 2.5 mm mini stereo jack
Baud rate and protocol	9600 (default), 19200, 38400, 115200 baud (adjustable); 8 data bits, 1 stop bit, no parity
Serial control pin configurations	
88/816/164/168/1212/16	16 Series, 328 A, and 248 A
RS-232	9-pin female D connector: 2 = Tx, 3 = Rx, 5 = GND Mini stereo jack: tip = Tx, ring = Rx, sleeve = GND
RS-422	2 = Tx-, 3 = Rx-, 5 = GND, 7 = Rx+, 8 = Tx+
2412/2424/3216/3232 Seri	ies, 328 A, and 248 A
RS-232	9-pin female D connector: $2 = Tx$ , $3 = Rx$ , $5 = GND$
	1 = Tx+, 2 = Tx-, 3 = Rx+, 4 = Rx-, 5 = Gnd
Ethernet control port	
Ethernet data rate	10/100Base-T, half/full duplex with autodetect
<del>-</del>	ARP, DHCP, ICMP (ping), TCP/IP, Telnet, HTTP, SMTP
Program control	Extron's control/configuration program for Windows®
	Extron's Simple Instruction Set (SIS™) Microsoft® Internet Explorer, Telnet
General	
Power	100 VAC to 240 VAC, 50-60 Hz, internal
88/128 Series	20 watts
816/1212/164/168/1616 S	Series Series
	30 watts
2412/3216 Series video mo	odels
	2 (primary and redundant), 100 watts
2424/3232 Series video mo	
	2 (primary and redundant), 120 watts
	2 (primary and redundant), 48 watts
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +113 °F (0 to +45 °C) / 10% to 90%, noncondensing
Cooling	
MAV Plus 88-1616	•
MAV Plus 2412/2424/321	6/3232 Series, 328 A, and 248 A Fan, right to left (viewed from the front panel
Mounting	1
Enclosure type	Metal

```
Enclosure dimensions................ (Depth excludes connectors and controls. Width excludes rack ears.)
      88/128 Series (all) and 816/1212/164/168/1616 Composite Video Series and/or Stereo Audio Series
                           3.5" H x 17.0" W x 9.4" D (2U high, full rack wide)
                            8.9 cm H x 43.2 cm W x 23.9 cm D
      816/1212/168/1616 S-video Series with and without audio and 248 A/328 A
                            5.25" H x 17.0" W x 9.4" D (3U high, full rack wide)
                            13.3 cm H x 43.2 cm W x 23.9 cm D
      816/168/1616 Component Video Series with and without audio
                            7.0" H x 17.0" W x 9.7" D (4U high, full rack wide)
                            17.8 cm H x 43.2 cm W x 24.6 cm D
      2412/2424/3216/3232 Composite Video Series and S-video Series
                            8.75" H x 17.0" W x 12.25" D (5U high, full rack wide)
                            22.2 cm H x 43.2 cm W x 31.1 cm D
      3232 S-Video with Audio Series
                            14.0" H x 17.0" W x 12.25" D (8U high, full rack wide)
                            35.6 cm H x 43.2 cm W x 31.1 cm D
Product weight/shipping weight
      88/128 Composite Video Series with and without audio (2U enclosures)
                            8.9 lbs (4.0 kg)/15 lbs (7 kg)
      816/1212/164/168/1616 Composite Video Series and Stereo Audio Series (2U enclosures)
                            9.4 lbs (4.3 kg)/15 lbs (7 kg)
      816/1212/168/1616 S-video Series with and without audio, 328 A, and 248 A (3U enclosures)
                            11.9 lbs (5.4 kg)/18 lbs (9 kg)
      816/168/1616 Component Video Series with and without audio (4U enclosures)
                            14.4 lbs (6.5 kg)/22 lbs (10 kg)
      DIM weight...... (2U, 3U, and 4U models)
      Vibration ...... ISTA 1A in carton (International Safe Transit Association)
Regulatory compliance
      Safety..... CE, c-UL, UL
      EMI/EMC ...... CE, C-tick, FCC Class A, ICES, VCCI,
MTBF...... 30,000 hours
Warranty...... 3 years parts and labor
NOTE All nominal levels are at \pm 10\%.
```

**NOTE** Specifications are subject to change without notice.

7.6-090309-D15

# **Specifications — DXP DVI Pro Series**

**NOTE** \*Appropriate DVI-D to HDMI cables or adapters are required for HDMI signal input/output.

V	id	0	n
v	ıu	C,	_

Video	
Routing	
DXP 44 DVI PRO	
DXP 48 DVI PRO	
DXP 84 DVI PRO	
DXP 88 DVI PRO	
•	Single-link DVI digital video signals are supported
Digital video	RGB digital video (DVI and HDMI standards) or Y, Cr, Cb digital component video (HDMI), actively buffered (supports all single-link DVI and HDMI (if using an optional adapter) standards from 640x480 @ 60 Hz to 1600x1200 @ 60 Hz computer video)
NOTE The DXP DVI Series so	vitchers are compatible with HDMI 1.3.
Digital audio	Supports HDMI audio (if using an HDMI to DVI adapter) transmitted through the RGB and Y, Cr, Cb lines, actively buffered.
Consumer Electronics Con	
	Supports CEC wired infrared data pass-through using the HDMI 1.3 standard.
EDID and DDC	Supports Extended Display Identification Data (EDID) and Display Data Channel (DDC) data using DVI and HDMI standards. EDID and DDC signals are actively buffered.
HDCP	Compliant with High-bandwidth Digital Content Protection (HDCP) using DVI and HDMI 1.3 standards
HPD	Supports hot plug detection (HPD) of display as a pass-through signal.
Gain	Unity
	Up to 1080p (HDTV) or 1920x1200 (the highest resolution of the single-link DVI standard) @ 60 Hz
Maximum data rate	6.75 Gbps (2.25 Gbps per color)
Maximum pixel clock	225 MHz
Standards	DVI 1.0, HDMI 1.3
Switching speed	200 ns, max.
Video input	
Number/signal type	$4~\rm or~8$ (depending on model) digital RGB (TMDS) single-link DVI-D (or HDMI*)
Connectors	4 or 8 female DVI-I (digital only)
Nominal level	
Digital video	1.2 Vp-p
DDC (Display Data Chann	el)
- 1	5.0 Vp-p (TTL)
Minimum/maximum level	
Impedance	100 ohms
Return loss	<-15 dB @ 1 MHz to 1.5 GHz
TDR rise time (10%-90%)	75 ps
Equalization	Automatic
Input cable length	>50' (15.24 m) at 1920x1200 @ 48, 50, or 60 Hz; or 1080p

**NOTE** The transmission distance varies depending on the signal resolution and on the type of cable, graphic card, and display used in the system.

#### Video output

Number/signal type	4 or 8 (depending on model) digital RGB
Connectors	4 or 8 female DVI-I

# Specifications — DXP DVI Pro Series, cont'd

	•
Nominal level	1.2 Vp-p
Minimum/maximum level(s)	0.5 V to 1.0 Vp-p with no offset (follows input)
Impedance	100 ohms
Return loss	<-15 dB @ 1 MHz to 1.5 GHz
DC offset	±500 mV maximum with input at 0 offset
Rise and fall time (20-80%)	0.6 ns
Re-clocking	Automatic
Peripheral device power	250 mA per output
Control/remote — switch	er
	(1) RS-232, 9-pin female D connector
Correct Constant P Constant	(1) RS-232, front panel 2.5 mm mini stereo jack
Baud rate and protocol	9600 to 115200 baud, 9600 baud (default), 8 data bits, 1 stop bit, no parity
Serial control pin configurations	, , , , , , , , , , , , , , , , , , , ,
9-pin D connector	2 = Tx, $3 = Rx$ , $5 = GND$
——————————————————————————————————————	Tip = Tx, $ring = Rx$ , $sleeve = GND$
Ethernet control port	
<del>-</del>	10/100Base-T, half/full duplex with autodetect
	ARP, ICMP (ping), IP, TCP, DHCP, HTTP, Telnet
_	Link speed and duplex level = autodetected
Detail betwig	IP address = 192.168.254.254
	Subnet mask = 255.255.0.0
	Gateway = 0.0.0.0
	DHCP = off
Program control	Extron's control/configuration program for Windows®
	Extron's Simple Instruction Set (SIS™)
	Microsoft® Internet Explorer® ver. 6 or higher, Telnet
General	
Power	100 VAC to 240 VAC, 50-60 Hz, 15 watts, internal
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Cooling	Fan, air flows right to left (as viewed from front)
Mounting	
Rack mount	Yes, 2U high
Enclosure type	Metal
- <del></del>	3.5" H x 17.5" W x 12.0" D (2U high, full rack wide)
	(8.9 cm H x 44.4 cm W x 30.5 cm D)
	(Depth excludes connectors. Width excludes integrated rack ears.)
Product weight	<u> </u>
Shipping weight	
Vibration	ISTA 1A in carton (International Safe Transit Association)
Regulatory compliance	
Safety	CE, c-UL, UL
Compliances	CE, C-tick, FCC Class A, ICES, VCCI
MTBF	30,000 hours
Warranty	3 years parts and labor
<b>NOTE</b> All nominal levels are a	
<b>NOTE</b> Specifications are subje	ct to change without notice.
•	

7.6-052109-D5

# Specifications — DMP 64

Specifications — DMP 64		
Audio		
Audio	Unbalanced output: -6 dB; balanced output: 0 dB	
Frequency response	- · · · · · · · · · · · · · · · · · · ·	
	<0.01% @ 1 kHz, at maximum output level	
	>10.5 dB, 20 Hz to 20 kHz, at maximum output, unweighted	
Crosstalk		
CMRR	•	
Audio input		
<del>-</del>	6 mono, mic/line, balanced/unbalanced	
	(6) 3.5 mm captive screw connectors, 3 pole	
	>10k ohms unbalanced/balanced	
	+4 dBu when level is set to 0 dB gain; adjustable from -60 dBu to +4 dBu	
	+24 dBu, balanced, when input gain is set to -3 dB	
	<-120 dBV (1 μVrms) at 40 dB gain	
	-18 dB to +80 dB, mic/line input, adjustable per input	
	+48 VDC, which can be switched on or off	
<b>NOTE</b> $0  dBu = 0.775  Vrms, 0$		
Audio processing		
D/A conversion	24 bit 48 kHz sampling	
	21 bit, to Kill builtpling	
Audio output	A many a halamand /wwhales and	
Number/signal type		
	(4) 3.5 mm captive screw connectors, 3 pole	
•	50 ohms unbalanced, 100 ohms balanced	
Gain error		
Maximum level (HI-Z)	>+21 dBu balanced, >+15 dBu unbalanced	
Control/remote — audio		
Serial host control port	1 bidirectional RS-232, 3.5 mm captive screw connector, 3 pole	
Baud rate and protocol	38400 baud; 8 data bits, 1 stop bit, no parity	
Serial control pin configuration		
USB control ports	•	
USB standards	•	
Ethernet host port		
Ethernet data rate	10/100Base-T, half/full duplex with autodetect	
Ethernet default settings	Link speed and duplex level = autodetected	
	IP address = 192.168.254.254	
	Subnet mask = 255.255.0.0  Default catavay = 0.0.0.0	
	Default gateway = 0.0.0.0 DHCP = off	
Web server	Up to 200 simultaneous sessions	
	6.5 MB nonvolatile user memory	
Program control	Extron control/configuration program for Windows® Extron Simple Instruction Set (SIS™) Microsoft® Internet Explorer®, Telnet	
General		
External power supply	100 VAC to 240 VAC, 50-60 Hz, to +12 VDC, 2 A, regulated	
Power input requirements	· · · · · · · · · · · · · · · · · · ·	
	Character 40 to 1150 9T ( 40 to 170 9C) / 100/ to 000/	

Temperature/humidity...... Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing

Cooling ...... Convection, no vents

#### Extron DMP 64 Digital Audio Matrix Processor • Specifications

Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing

# Specifications — DMP 64, cont'd

Mounting	
Rack mount	Yes, with optional 1U rack shelf
Furniture mount	Yes, with optional under-desk mounting kit
Enclosure type	Metal
Enclosure dimensions	1.7" H $\times$ 8.75" W $\times$ 9.5" D (1U high, half rack wide) (4.3 cm H $\times$ 22.2 cm W $\times$ 24.1 cm D) (Depth excludes connectors.)
Product weight	1.9 lbs (0.9 kg)
Shipping weight	4 lbs (2 kg)
Vibration	ISTA 1A in carton (International Safe Transit Association)
Regulatory compliance	
Safety	CE, c-UL, UL
EMI/EMC	CE, C-tick, FCC Class B, ICES, VCCI
Environmental	Complies with the appropriate requirements of RoHS, WEEE
MTBF	30,000 hours
Warranty	3 years parts and labor
NOTE All nominal levels are a	t ±10%
<b>NOTE</b> Specifications are subject	ct to change without notice.

7.6-111709-D3

# Specifications — DVI DA2, DVI DA4

**NOTE** \*Appropriate DVI-D to HDMI cables or adapters are required for HDMI signal input/output.

#### Video

Maximum pixel clock ...... 165 MHz

Video input

Number/signal type..... 1 single link DVI-D (or HDMI\*)

Connectors ...... 1 female DVI-I

Video output

Number/signal type

DVI DA2...... 2 single link DVI-D (or HDMI\*): 1 main, 1 local

**NOTE** Local output is used for DDC communications and hot plug detection.

DVI DA4...... 4 single link DVI-D (or HDMI\*)

General

Power input requirements....... 12 VDC, 0.4 A

Temperature/humidity...... Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing

Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing

Cooling ...... Convection, no vents

Mounting

Rack mount...... Yes, with optional rack shelf kit

Furniture mount...... Yes, with optional under-desk mounting kit

Enclosure type ...... Metal

 $(4.4 \text{ cm H} \times 22.2 \text{ cm W} \times 7.6 \text{ cm D})$ 

(Depth excludes connectors.)

Shipping weight ...... 5 lbs (3 kg)

Vibration ....... ISTA 1A in carton (International Safe Transit Association)

Regulatory compliance

Safety..... CE, CUL, UL

EMI/EMC ...... CE, C-tick, FCC Class A, ICES, VCCI

MTBF...... 30,000 hours

Warranty ...... 3 years parts and labor

**NOTE** All nominal levels are at  $\pm 10\%$ .

**NOTE** Specifications are subject to change without notice.

7.6-030409-D9

#### KRAMER KR-105A

INPUT:

1 audio stereo/balanced mono,1Vpp/33k $\Omega$  on a 3.5mm mini jack connector.

OUTPUTS:

5 audio stereo/balanced mono  $1\text{Vpp/}50\Omega$  on 3.5-mm mini jack connectors.

MAX. OUTPUT:

5Vpp (>+4dBu).

AUDIO BANDWIDTH (-3DB):

20kHz.

S/N RATIO:

80dB unweighted.

CONTROL:

Left and right gain rear trimmers (0/+3.5dB range).

COUPLING:

AC.

THD:

0.03% (2nd harmonic).

POWER SOURCE:

12V DC, 100mA.

DIMENSIONS:

12cm x 7.5cm x 2.5cm (4.7" x 2.95" x 0.98") W, D, H.

WEIGHT:

0.28kg (0.62lbs) approx.

ACCESSORIES:

Power supply, mounting bracket.

OPTIONS:

RK-3T 19" rack adapters.